

# **CERTIFICATE SUPPLEMENT (\*)**



## 1. TITLE OF THE CERTIFICATE (DE) (1)

## Reife- und Diplomprüfungszeugnis der Höheren Lehranstalt für Elektrotechnik

(1) in original language

## 2. TRANSLATED TITLE OF THE CERTIFICATE (EN (2))

## School Leaving Certificate and Diploma Certificate of the Higher Federal Technical College of Electrical Engineering

<sup>(2)</sup> This translation has no legal status.

#### 3. PROFILE OF SKILLS AND COMPETENCES

A typical holder of the certificate is able to

- carry out typical engineering activities in the fields of electrical engineering, energy systems, automation technology, drive technology, industrial electronics, applied informatics/computer sciences and information technology
- plan, develop, implement, put into operation and maintain/service electrical systems, drives and equipment of industrial electronics, as well as to carry out automation, programming and visualisation tasks
- communicate about technical and economic matters orally and in writing in the English language apply typical engineering principles in the fields of:
- Structure and operation of electrical systems
- Interaction between technical systems
- Computer-aided project development and practically orientated project activities
- Systems, drives and equipment of electrical engineering
- Control, regulation and automation technology equipment
- Sustainable production, distribution and utilisation of electrical energy
- Process data/real-time data for the automation of industrial processes
- Electronic devices for industrial application
- Control systems for industrial plants
- Components of mechanical and electrical systems
- Independent planning, organisation and control of work processes
- Implementation of safety requirements
- Application of methods of quality management, project management and process management

prepare to contribute their personal and social competences in the fields of interdisciplinary work and activities in management, as well as their problem-solving skills, capacity for teamwork, creativity, entrepreneurial thinking and acting, customer-orientation

#### 4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THE CERTIFICATE (3)

#### Range of occupations:

Technical expert and senior manager for electrical engineering systems, drives and equipment, thereby considering customer specifications, standards and regulations. Technical expert for designing, dimensioning and implementing control, regulation and automation technology equipment by using specific software. Expert for the planning and implementing of sustainable systems for the production, distribution and utilisation of electrical energy. Expert for the collecting and processing of process data/real-time data for the automation of industrial processes. Expert for the development of electronic devices for industrial application, for combining industrial systems by means of IT and for integrating them into superordinated networks. Expert for the design, implementation, analysis and simulation of systems and drives of electrical engineering, thereby using specific software. Expert for the manual or mechanical production of components of mechanical and electrical systems. Expert for the production of electrical systems by assembling mechanical, electrical, electronic and IT modules, for the operation of electrical systems, as well as for finding and correcting malfunctions and errors by using suitable measuring, testing and diagnosing methods. Engineer for quality assurance and for the planning, controlling and monitoring of work processes. Project manager. Senior employee and project leader.

Pursuit of regulated professions on a self-employed basis (www.gewerbeordnung.at)

(3) if applicable

#### (\*) Explanatory note

This document is designed to provide additional information about the specified certificate and does not have any legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications, Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates, and Recommendation 2001/614/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers. More information on transparency is available at: <a href="http://europass.cedefop.eu.int/">http://europass.cedefop.eu.int/</a> or http://europass.cedefop.eu.int/ or http://europass.cedefop.eu.int/</a> or http://europass.cedefop.eu.int/</a> or http://europass.cedefop.eu.int/ or http://europass.cedefop.eu.int/</a>

#### 5. OFFICIAL BASIS OF THE CERTIFICATE Name and status of the body awarding the certificate Name and status of the national/regional authority providing accreditation/recognition of the certificate Educational institution recognized by the State of Austria, for address see certificate Federal Ministry of Education, Science and Research Level of the certificate (national or international) Grading scale / Pass requirements 1 = excellent (excellent performance) EQF/NQF 5 2 = good (good performance throughout) ISCED 55 3 = satisfactory (balanced performance) 4 = sufficient (performance meeting minimum pass levels) 5 = not sufficient (performance not meeting minimum pass levels) In addition, the overall performance at the final exam is rated as follows: Pass with distinction, Good pass, Pass, Fail

#### Access to next level of education/training

In accordance with the School Organisation Act (Schulorganisationsgesetz), Federal Law Gazette no. 242/1962 as amended, this certificate entitles holders to attend a university, a post-secondary VET course (Kolleg), and a post-secondary VET college (Akademie); in accordance with the Act on Fachhochschule Study Programmes (Bundesgesetz über Fachhochschul-Studiengänge), Federal Law Gazette no. 340/1993 as amended, to attend a Fachhochschule study programme; and in accordance with the 2005 Higher Education Act (Hochschulgesetz), Federal Law Gazette I no. 30/2006 as amended, to attend a university college of teacher education (Pädagogische Hochschule).

#### International agreements

- European Convention on the Equivalence of Diplomas leading to Admission to Universities, Federal Law Gazette no. 44/1957
- Convention on the Recognition of Qualifications concerning Higher Education in the European Region, Chapter IV, Federal Law Gazette III no. 71/1999
- Training completed with this certificate is a regulated education and training programme in accordance with Article 11, point (c) (ii) of Directive 2005/36/EC on the recognition of professional qualifications, as last amended by Directive 2013/55/EU. The level of training corresponds to point (c) of Article 11 of the Directive.

#### Legal basis

National curriculum, Federal Law Gazette II no. 262/2015 current version Examination specification BMHS (concerning the final exams in vocational schools and colleges), Federal Law Gazette II no. 177/2012 current version

### 6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

1. Training and education as defined by the National Curriculum for Secondary Colleges of Electrical Engineering 2. External certification as defined in Federal Law Gazette II no. 362/1979 current version

#### **Additional information**

Entry requirements: successful completion of school year 8; if necessary entrance examination

**Duration of Education**: 5 years

Duration of compulsory work placement: totally 8 weeks

Educational objectives: Intensive five-year initial training programme in occupation-related practice and occupationrelated theory, as well as in general education subjects, technical-scientific and business-related subjects. Independent use of thinking methods as well as attitudes towards work and decision-making which qualify graduates to immediately exercise professions at executive level in the engineering, arts and crafts sector in industry and trade as well as to take up higher studies. Use of personal and social competences in the way they are required for modern forms of work and communication - including in multicultural teams. Modern frames of mind and attitudes to work such as a cosmopolitan approach, creativity and innovation capacity.

Subjects include: see List of Subjects in the Reifeprüfung-Certificate and VET-Diploma

More information (including a description of the national qualification system) is available at: http://www.certificate.at or at http://www.edusystem.at or at http://www.bmbwf.gv.at

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